



TRIENNIAL REPORT

ON

VACCINATION IN BURMA

FOR THE YEARS 1905-1906 TO 1907-1908



RANGOON

OFFICE OF THE SUPERINTENDENT, GOVERNMENT PRINTING, BURMA

1908







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TRIENNIAL REPORT

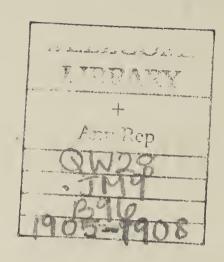
ON

VACCINATION IN BURMA

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RANGOON



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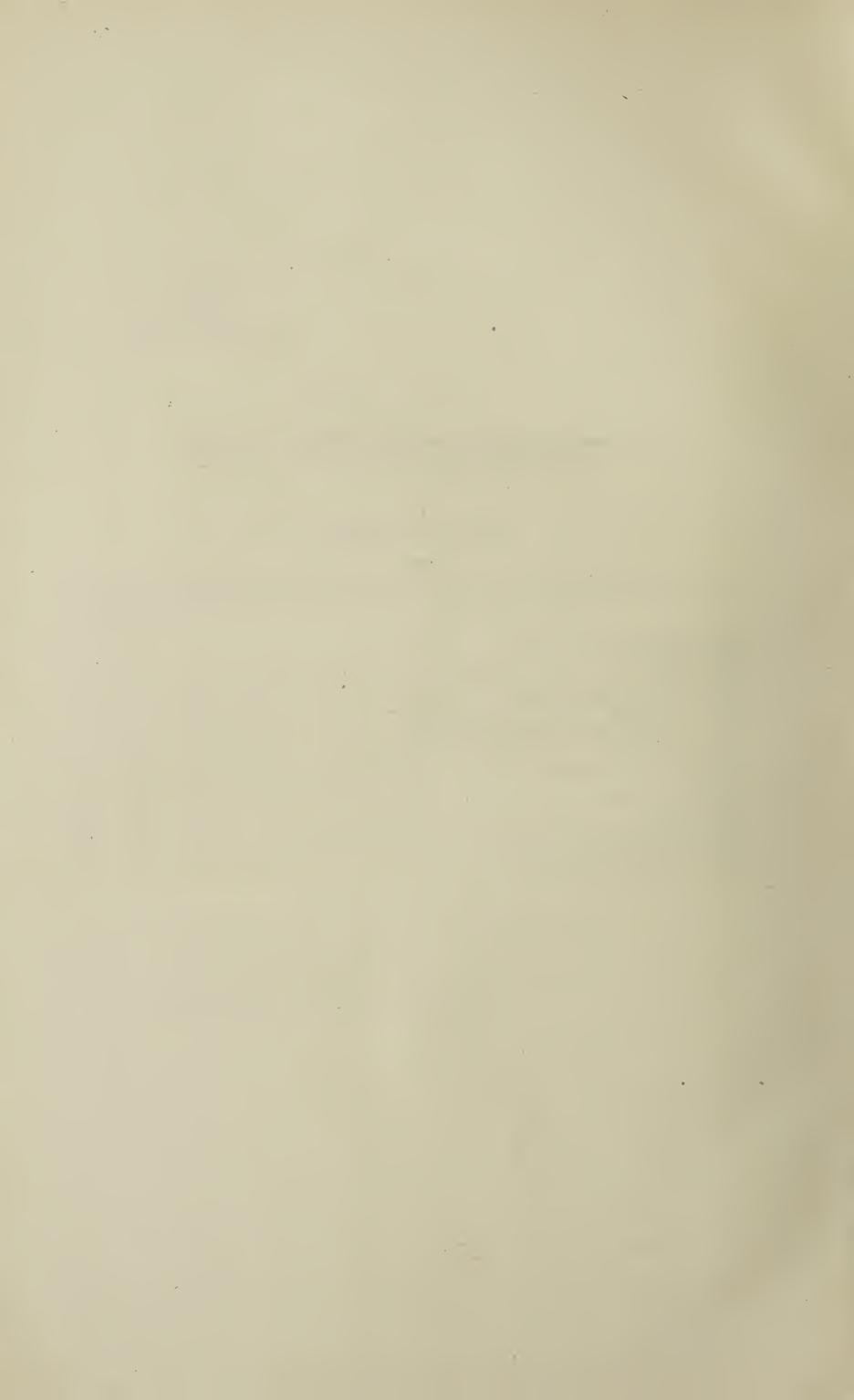
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RESOLUTION

ON THE

TRIENNIAL REPORT ON VACCINATION IN BURMA

FOR THE YEARS 1905-06-1907-08.

Extract from the Proceedings of the Government of Burma in the General Department, dated the 25th July 1908.

READ-

The Triennial Report on Vaccination in Burma for the years 1905-06-1907-08.

RESOLUTION.—Although in certain respects the work of the Vaccination' Department in the last three years shows improvement many serious defects which have been brought to notice in previous reports still persist. The total increase in the number of operations performed in the Province outside Rangoon is only some 11,000 per annum and the number of persons successfully vaccinated each year is still about 30 in each thousand of the population. The average number of operations 1,721 performed by each vaccinator was actually less than the average of the last triennium. Geographical conditions and other circumstances that affect the work of vaccinators vary so much in different districts that it is probably impossible to lay down any hard and fast rule as to the number of operations that a vaccinator can perform in a month, or even in a year. But the difference in the results obtained in adjoining districts, where the conditions of work are similar, is striking. Thus, if a vaccinator can perform 3,100 operations a year in the Sagaing District it should be possible for vaccinators in Shwebo to perform more than 1,200. Similarly, when the average number of operations in Bassein and Myaungmya is 1,300 each the averages for Ma-ubin and Pyapôn, 550 and 390 respectively, are clearly insufficient.

2. In some towns and villages it is said that the people are hostile to vaccination, and the Sanitary Commissioner is inclined to attribute this attitude to inefficiency and want of tact on the part of the vaccination staff. Inoculation is still practised freely in rural areas and is reported to have caused outbreaks of small-pox in the Upper and Lower Chindwin Districts, Yamethin and Pakokku. The Lieutenant-Governor is convinced that the people of this Province as a whole have no strong objection to vaccination in itself. When they prefer inoculation it is partly because inoculation is an established practice and vaccinators are not always available, partly because vaccination has not always given good results. A Bill will shortly be introduced into the Legislative Council for the purpose of empowering the Local Government to prohibit inoculation in any rural area. It is not intended to introduce this enactment into all parts of the Province at once, for until the Vaccination Department is rendered thoroughly efficient it is not reasonable to make inoculation a penal offence. At first therefore its operation will be confined to the districts of Pegu and Hanthawaddy, where the vaccination staff is being reorganized. By degrees, as full facilities for vaccination are

provided and as the confidence of the people is gained, the measure, if it becomes law, will be applied to other districts and in time there is no reason to doubt that the practice of inoculation will be as dead in Burma as it is in Europe. It is not intended to make vaccination compulsory in rural areas.

- 3. In order to provide for better supervision the service of Native Superintendents has been reorganized and enlarged from 16 to 44. The Lieutenant-Governor observes with pleasure that in the year 1907-08 the Native Superintendents inspected 40 per cent. of the total number of primary vaccinations and nearly 45 per cent. of the total number of re-vaccinations. These figures represent a very large advance over those of any previous year and the Lieutenant-Governor trusts that this standard of work will be maintained. The increase in the number of inspections performed by Native Superintendents is, however, counterbalanced by a continuous falling off in the number of inspections performed by the Deputy Sanitary Commissioner and Civil Surgeons. Each year of the triennium shows a decrease, and in the year 1907-08, Civil Surgeons and the Deputy Sanitary Commissioner inspected only 13 per cent. of the total number of primary vaccinations. The annual average for the triennium was 16 per cent. as compared with 20 per cent. in the previous triennium. The increase in the strength of the Native Superintendents was not intended to relieve Civil Surgeons of their duty of inspecting the work of vaccinators but to assist them in that duty. The Lieutenant-Governor hopes that Civil Surgeons will give more attention to this work than they have recently done.
- 4. The percentage of cases inspected by the Deputy Sanitary Commissioner and Civil Surgeons in which the operation was found to be successful shows a distinct improvement, the average number of primary vaccinations found successful by Civil Surgeons being 90 per cent. in the last as compared with 85 in the previous triennium.
- 5. The Lieutenant-Governor has read with much pleasure the praise bestowed in this report and in the notes for the years 1905-06 and 1906-07 on Major Entrican's work at the Vaccination Depot. Great improvement in the quality of lymph supplied from Meiktila has resulted from the care and skill with which Major Entrican has carried out his duties. The Lieutenant-Governor's thanks are due to him for his success in this work as well as for the training of Native Superintendents and Vaccinators.
- 6. In Rangoon the serious outbreak of small-pox which occurred in the year 1905-06 resulted in a great increase of work. 114,000 vaccinations were performed in the triennium ending 31st March 1908 as compared with 44,000 in the previous three years. Since this epidemic the Municipal Committee have given their attention to the improvement of vaccination work, the staff has been reorganized, new vaccination stations have been built at convenient places in the town, and the supply of lymph has been much improved. A Bill will shortly be introduced into the Legislative Council to afford additional facilities for the vaccination of immigrant coolies. It is believed that this class of the population, of which a large proportion is unprotected, constitutes a serious menace to the health of the town. The Lieutenant-Governor believes that with the additional power furnished in this

Bill, if it becomes law, and the improved facilities which the Municipal Committee are now providing, it should be possible to prevent the occurence in future of such a serious epidemic as occurred two years ago.

- 7. The suggestion referred to in paragraph 6 of the Resolution on the last triennial Report that the performance of vaccination should be limited to certain seasons of the year has been further considered. Owing to the marked differences in climatic conditions in different parts of the Province, no general orders have been passed for the cessation of work in any specified part of the year. But it has been arranged that the grant of privilege leave to Vaccinators and Native Superintendents of Vaccination should, as far as possible, be restricted to the season of the year that is least suitable for vaccination in each district.
- 8. Apart from special measures to be undertaken under the new enactments referred to above, it will be necessary throughout the next three years to insist on stricter supervision by Civil Surgeons over the work of vaccinators, and both Civil and Medical Officers should endeavour to remove the prejudice that exists in some places against the Vaccination Department and to promote the popularity of vaccination as compared with inoculation. In these efforts Medical Officers will have the advantage of a staff of well-trained Native Superintendents for the supervision of vaccinators and will no longer have to contend with the difficulties that arise from an inferior supply of lymph. The Sanitary Commissioner being now a whole-time officer will be able to devote more time than hitherto to the general supervision of vaccination work. Civil Officers have good opportunities for removing any prejudice that may exist against vaccination as well as for discouraging the dangerous practice of inoculation, and the Lieutenant-Governor desires once more to impress on them the necessity for their co-operation. It is clear that vaccination is disliked in certain places in the Pegu and Irrawaddy Divisions and probably elsewhere. In order to remove this feeling it is necessary not only that the work of vaccination should be better and the supervision of Civil Surgeons closer, but also that Deputy Commissioners and Subdivisional and Township Officers should take advantage of their influence and authority to bring home to the people the danger of inoculation and the advantages of vaccination.

By order of the Lieutenant-Governor of Burma,

D. SHEARME,

Secretary to the Government of Burma.



TRIENNIAL REPORT

ON

VACCINATION IN BURMA

FOR THE YEARS 1905-1906 TO 1907-1908.

The marginal statement gives the strength of the Vaccination establishment Statement I.

Year.				District Superintendents.	Native Superintendents.	Vaccinators
1904-05	•••	•••	•••	40	16	283
1905-06	•••	•••		41	16	241
906-07	•••	•••		41	82	244
1907-08	•••	•••		41	44	253
	A	verage	•••	41	81	246

during each of the three years under review. It will be seen that the average of the three years was 41 District Superintendents, 31 Native Superintendents

246 vaccinators. This amounts to an increase on the average of the preceding triennium of two District Superintendents, 16 Native Superintendents and 23 vaccinators. The Native Superintendents were increased in 1906-07 from 16 to 32 and in 1907-08 to 44. The ten vaccinators sanctioned in 1907-08 were distributed to the following districts:—Northern Arakan Tracts 1, Amherst 1, Bhamo I, Ruby Mines I, Myitkyina I, Southern Shan States 4, and Chin Hills I. The staff of Thaton District was reduced by one vaccinator, entertained temporarily for a period of six months from 1st January 1907.

The reorganisation scheme of Native Superintendents of Vaccination, described in the last Triennial Report, received the sanction of the Government of India and came into force from 1st May 1906. The fixed travelling allowance was, however, disallowed, and nominees received pay from the commencement of training. 1906-07, 24 Native Superintendents were trained and posted to the districts named in that Report. In 1907 sanction was obtained for one more Native Superintendent, and a further seven have been under training at Meiktila since 1st March 1908.

2. Work performed during the triennium.—The total number of operations Statement I. performed was 1,269,953 which is an increase of 103,368 over the total of the previous triennium, but of only 15,629 over that of the triennium ending in 1901-02. The returns have, however, been more reliable in each succeeding period. The increase was not general throughout the province, 17 out of 40 districts showing a decrease. Five districts show a very considerable increase, namely, Rangoon Municipality 70,722, Amherst District 26,483, Sagaing District 28,298, Akyab District 24,598, Thaton 17,154; on the other hand four districts show a marked falling off, namely, Henzada 29,356, Tavoy 20,262, Shwebo 15,709, Prome 15,579. Only six districts show a continuous increase year by year, namely, Kyaukpyu, Sandoway, Tavoy, North Arakan Hill Tracts, Ruby Mines, and Upper Chindwin. A continuous annual decrease is shown by Rangoon, Hanthawaddy, Pegu, Tharrawaddy, Prome, Ma-ubin, Bassein, Henzada, Pyapôn, Bhamo, Minbu, Meiktila, Northern and Southern Shan States and Chin Hills.

It is evident that if the increased work performed in Rangoon be omitted from the calculation, the increase for the remaining districts is only 32,646. The high average attained in Rangoon, namely, 38,135 per annum for the triennium, was partly the result of special efforts made to cope with a severe outbreak of small-pox in 1905-06 and the following year, and partly of a general improvement in organisation and working of the vaccination staff.

Statement I. 3. Primary Vaccination.—The total number of primary operations was 1,117,364, an increase of 22,389. The percentage of success was 91.05. It is a distinct improvement on that obtained in the previous triennium (86.35).

Statement I. 4. Re-vaccination.—One hundred and fifty-two thousand five hundred and eighty-nine operations were performed against 71,610 of the previous triennium, an increase of 80,979. The percentage of success was 54.74 against 49.80 in the earlier period.

Statement I. 5. Average work of each Vaccinator.—The average number of operations performed by each vaccinator was 1,721, a decrease of 20 on the last triennium. This gives an average of 143.42 per mensem for each vaccinator, which is very far below even reasonable demands. Colonel King was of opinion that each vaccinator should ordinarily perform 300 operations in a month. Efforts will be made to approach this ideal.

It has, however, been found extremely difficult in Burma to obtain vaccinators for the emoluments offered, who will take an interest in their work and apply themselves to overcoming the strong prejudices entertained by the people to the

operation.

Statement I. 6. Successful Vaccination according to ages.—Two hundred and forty-five

Infantile protection during the triennium in Lower Burma.

		- 2 . A . I	,		(1
Ÿear,		Registered births during the calendar year.	Registered deaths under one year during calendar year.	Number of child- ren available for vaccination.	Infants successfully vaccinated during the year ending 31st March.	Percentage of available infants protected.
1905		191,226	37,595	153,631	41,979	27:32
1906		180,025	38,408	141,617	39,246	27.71
1907	•••	181,834	3 3, 25 8	148,576	35,361	23.80
Total	•••	553,085	109,281	443,824	116,586	26.27

thousand nine
hundred and
thirty-nine infants
under one year
of age were successfully vaccinated, an increase
of 14,567 on the
previous record;
534,128 children
successfully

vaccinated were between one and six years. The total number of successful operations performed on children below six years was 780,067. The total increase is 31,646 over the previous triennium. At the Census of 1901 the population between o and 5 years was stated to be 1,448,174 and the infants up to one year of age totalled 248,380. The highest number of infants vaccinated in one year during the period under review was 87,562 in 1905-06. The average for the three years is 81,980. The births recorded for about nine-tenths of the population total 278,533 (which is probably considerably below the actual), of whom about one-fifth died within the year. It is thus evident that about one-third of available infants are at present vaccinated before they attain 12 months of age. Since vaccination is performed subject to the approval of parents and the Burmans are averse to allowing their children to be operated on before they have reached two years of age, or even more, improvement in these particulars will depend very much upon the tact and personal influence of the vaccinator, and the circumstances afford an argument for employing a better stamp of men than the department attracts at present. The figures for children available for vaccination, and the number protected during the triennium, will be found in the marginal statement (information is only available for Lower Burma).

Statement I.

7. Protection to population.— The proportion per mille of population successfully vaccinated during the triennium was 33.16 compared with 30.38 for the preceding three years. The average ratio per thousand of the population protected by vaccination during the quinquennial period preceding each of the three years under review was 32.01.

Appendix A gives the ratio for the number of persons per ten thousand of the population successfully vaccinated during the five years preceding the last year of the triennium ending with 1907-08, and the ratio of deaths from small-pox during the same period. The ratio of protection is lower than in the previous quinquennium, and that of mortality from small-pox is also rather less. The improvement in the mortality from small-pox, which had been almost continuous since 1899, was disturbed by the severe epidemics of the disease in 1905 and 1906. The tendency

for small-pox to recur in severe epidemics every fifth or sixth year is well shown in this table.

8. Inoculation and attitude of the people towards Vaccination.—Inoculation appears to be unknown to, and unpractised among, the Shans of Loimwe (Kēngtūng State), although in vogue among their Chinese and Burmese neighbours.

The Burmese population as a whole maintains a passive attitude towards vaccination, while Karens accept it readily. In Myaungmya three-quarters of the operations performed are on Karens. In the districts of Tharrawaddy, Pakôkku and Amherst the population is said to be antagonistic to the operation. In the Northern Shan States there is active opposition and progress is likely to be very slow. The officials of the Native States, however, do their best to assist the vaccinators.

In 1907-08 inoculation is referred to as being the cause of mortality from small-pox in the Lower Chindwin District, where 93 cases of small-pox occurred with four deaths due to this operation, and in Upper Chindwin District where 22

deaths followed on 141 operations.

In Yamethin small-pox was propagated by inoculation. In the Kawa Township of Pegu District an inoculator holding a vaccinator's certificate from the Health Officer, Rangoon Municipality, openly practised inoculation, showing the certificate to the villagers as his authority to inoculate. He also produced a copy of an order passed by the Chief Court that inoculation was not illegal.

It is the general experience of District Civil Surgeons that both inoculation and vaccination are most sought after during small-pox epidemics. In consequence, in a year when there is no epidemic there is a falling off in the amount of

vaccination performed.

Inoculation is still practised freely in non-Municipal areas. In the absence of facilities for obtaining the services of vaccinators, and also by reason of their distrust in the efficacy of vaccination, as a protection against small-pox, the rural populations continue to resort to inoculation whenever they are threatened by an epidemic of small-pox. This habit is illustrated by the circumstances attending the outbreak of small-pox in Pakôkku District in the earlier months of 1907, adverted to in my Sanitary Report for that year.

A Bill has been introduced into the Provincial Legislative Council for extending the prohibition against inoculation now in force in Municipalities only, into notified rural areas, and there is no reason to doubt that this measure, combined with an improved organization for meeting the demand which will necessarily

arise for vaccination, will in time put an end to this dangerous practice.

9. Results by districts.—The heavy decline in operations performed in Thar-Statement I. rawaddy District, which fell from 17,252 in 1905-06 to 8,536 in 1907-08, is said by the Civil Surgeon to be due to the difficulty experienced by the vaccinators in getting subjects for operation. The following towns and villages were distinctly hostile to vaccination,—Thônzè, Letpadan, Zigôn, Gyobingauk, Minhla and Tharrawaddy. I am inclined to attribute the attitude of the people to inefficiency and want of tact on the part of the vaccination staff.

In Akyab, the decrease of 2,520 operations in 1907-08 on the previous year's record, is attributed to the prevalence of small-pox, which has conferred protection on a large number of children. The Mohamedan population of the district is less

favourable to vaccination than the Buddhist.

In Henzada there has been a remarkable and continuous decrease in the number of operations recorded during each of the three years under review, there having been only 14,923 operations performed in 1907-08 against 40,936 in 1905-06. The Civil Surgeon, Doctor McCarthy, reports that the records have been in the past quite unreliable, that the results reported by vaccinators in the district were not inspected or checked in any way, and that the number of operations performed was grossly exaggerated. He finds the people of the district opposed to vaccination, and that the Headmen of villages will give no assistance to the vaccinators.

Even in Henzada Town repeated prosecution fails in inducing parents to submit their children to vaccination. Doctor McCarthy deserves credit for throwing

light upon the true position of vaccination in this district, where active support of

the vaccination staff by the Civil Authorities is urgently required.

In Rangoon there has been a continuous decline in the numbers vaccinated during the past three years. This is, however, due to the great number of operations performed in 1905-06 in the face of a severe epidemic of small-pox, when every available officer of the Sanitary and Plague Staffs was employed to push vaccination, and the mill owners gave ready assistance to the Municipal Health Officer in the work of vaccinating residents in their cooly lines. A similar procedure was continued in 1906-07, but with the decline of small-pox the interest of the public in the matter flagged, while the proportion of unprotected mill-hands was of course much smaller than before the epidemic. The success obtained in primary and re-vaccination in Rangoon has shown a marked increase since the last triennial report, and in 1907-08 96 34 per cent. of verified primary operations and 60 64 of re-vaccinations were successful, while the figures for 1905-06 were 84 86 and 55 41 respectively.

Primary operations in infants have been particularly successful during the past twelve months in Rangoon; at most of the vaccination stations in the town

verified successes rarely fell below 99 per cent. in any month.

Statement III.

number of Dispensary Vaccinations.—There has been a yearly increase in the number of Dispensary vaccinations performed during the triennium, the results for each year being as follows:—

							Cases.
1905-06		* \$ *	•••	***		•••	17,507
1906-07	· • •	• • •	•••	* * *	•••	•••	18,521
1907-08	4,24	•••	***	* * *	•••	•••	19,131

The highest number of operations shown in any year of the previous trien-

nium was 15,562 in 1904-05.

The percentage of verified successes in primary operations was 95.32 in 1907-08 which may be compared with 83.32, the maximum figure attained in the previous triennium.

Statement IV.

vaccinations and of verified successes was obtained during the triennium under review, the returns for 1905-06 (162,004 operations and 144,074 successes) being the largest of any year in the decade 1898-99 and 1907-08 and those for 1907-08 being next in order.

As regards Municipal vaccinations there has been an annual decrease during the triennium, but the figures for 1905-06 are, however, the highest recorded since 1899-1900. The continuous decrease has been chiefly due to the falling off in

Rangoon Municipality already alluded to.

Under the head of "Local Fund" the returns of vaccination show an

annual decrease during the triennium.

Dispensary vaccinations, as already stated, show a considerable and sustained increase almost throughout the last six years.

There is a falling off under the heading "Native States."

Statement

of operations verified by Deputy Sanitary Commissioner and Civil Surgeons during each successive year of the triennium, and the highest number of inspections in any year is less than that of the last two years of the previous period. The return for 1907-08 (47,420 primary operations inspected) contrasts most unfavourably with the 78,238 recorded in 1904-05. This remark does not apply to verification of re-vaccination, though there is a decrease in 1907-08 under this head of over 7,000 below the returns of the two earlier years of the triennium under review.

The work of verification performed by Native Superintendents of Vaccination shows a considerable advance, nearly double the number of operations having been verified in the year 1907-08, as were inspected in 1904-05. As regards the percentage of cases found successful to the total number verified there was a marked improvement on the returns of the previous triennium, 90.52 primary and 59.25 re-vaccinations having been returned by Deputy Sanitary Commissioner

was

and Civil Surgeons in 1907-08 against 87.31 and 58.53, the highest figures for verification in the earlier period. A similar improvement is shown in the result verified by Native Superintendents. It is to be noticed that the Vaccinators returned a higher percentage of successes in primary operations than was verified by either class of inspecting officers, while their return of successful re-vaccinations was somewhat lower than that obtained on verification of their work.

In 1907-08 the Civil Surgeons of the Chin Hills (1°04), Akyab (6'65), Pegu (8.71), Tharrawaddy (2.56), Bassein (7.36), Henzada (3.46), Toungoo (1.61), and Thatôn (4.42), verified but a very small percentage of the operations performed.

In many cases the work at Headquarters leaves Civil Surgeons little leisure for district touring, but this cannot be said to apply to some of the stations named. The small amount of inspection duty performed at Tharrawaddy and Thatôn demands explanation. Hanthawaddy, Ma-ubin, Tavoy, Katha, Meiktila and Myingyan return a high percentage of verifications by District Superintend-

In Ma-ubin, Pyapôn, Amherst, Tavoy, Myingyan and Rangoon, percentages of the total primary operations varying from 63'99 to 94'77 were verified by Native

Superintendents.

Native Superintendents verified 40.05 per cent. of primary operations and 44.85 per cent. of re-vaccinations in 1907-08, but only 15.22 and 19.42 per cent. of each class of operations in 1906-07. The work done in 1907-08 was, however, a great increase on that of any year in the previous decade.

13. Cost during the triennium under review.—The total expenditure on Statement account of vacci-

nation during the triennium Rs. 3,80,597, as compared with Rs. 2,80,309 for the previous triennium.

Year.			Establish- ment.	Travelling allowance.	Contin- gencies.	Total.	Average cost per case.				
			Rs.	Rs.	Rs.	Rs.	Rs. A. P.				
1905-06	•••	•••	77,676	24,866	11,922	1,14,464	0 4 9				
1906-07	•••	•••	86,261	27,721	13,546	1,27,528	0 6 1				
1907-08	***	•••	92,052	34 ,91 9	11,6 33	1,38,604	0 6 11				

expenditure was mainly due to the entertainment of Native Superintendents of Vaccination and apprentice vaccinators under the reorganization scheme alluded to in the last triennial report, to an increase of the number of vaccinators during the period under review, and to the adoption in additional districts of the increased rate of pay sanctioned for district vaccinators in 1905-06. The total expenditure during the year 1907-08 as shown in the attached statement was Rs. 1,38,604 as compared with Rs. 1,27,528 expended during the previous year. This increase in expenditure is largely a sequel to the entertainment of 16 additional Native Superintendents of Vaccination during the period under review. The increase began with the financial year 1906-07, but did not affect the first two months of that year. During the financial year just concluded the increase affected all months of the year, and was enhanced by the fact that these additional Native Superintendents, posted during the year to their respective districts, drew travelling allowance during the major portion of its course.

The cost of each successful vaccination has increased from 6 annas I pie in 1906-07 to 6 annas 11 pies in 1907-08. The increase in cost has been due to a decrease in the number of operations shown; a decrease partly attributable to improved accuracy in the returns; partly to the performance of less actual work. This latter feature has to some extent been the result directly or indirectly of the presence of plague in the province. There is no doubt, however, that in Hanthawaddy, Ma-ubin and Pyapôn Districts where the rate is exceptionally heavy, the increase was due to the small number of operations performed by comparatively large district establishments. The increase in cost during 1907-08 is partly balanced by the increase which has taken place in the vaccination establishment during that year.

During the first year of the triennium the average cost per successful case varied from 15 annas 11 pies in Northern Arakan Hill Tracts to 2 annas and 1 pie in Sagaing. During the second year the rates varied from Rs. 1-6-5 in Meiktila to 2 annas 5 pies in Sagaing. During the third year the average cost varied from Rs. 2-6-2 in the Northern Shan States to 2 annas and 8 pies in Sagaing.

Statement II.

14. Percentage of Cost.—The percentage of total cost borne by Government

Year.	· ·	Government.	Municipalities.	Local Funds.	Native States.	and other bodies during the trien-
1902-031904-65	•••	34.17	17.96	44.69	3 ·1 8	nium under review
1905-06-1907-08	•••	3 9 •92	J 6 ·81	41.81	2.46	as compared with the previous trien-

nium, is shown in the marginal table. It will be seen that the share of cost borne by Government has increased from 34.17 per cent. in the previous triennium, to 39.92 in the triennium under review. The increase in proportion of the cost borne by Government was mainly due to the gradually increasing expenditure of the Vaccine Depôt, Meiktila, and to the cost of training of Native Superintendents of Vaccination and apprentice vaccinators.

Statement I.

15. Lymph supply.—During the triennium the lymph supply of the whole province, with the exception of Rangoon, has been obtained from the Vaccine Depôt, Meiktila, which has been under the continuous superintendence of Major Entrican. During the first year of the triennium 218 calves were inoculated with 182 successes, during the second year 240 with 205 successes, and during the third 263 with 239 successes. It is reported by the Superintendent that calves in good condition have of late been difficult to obtain on account of partial failure of the crops and local scarcity, the worst effect of which, however, has been the difficulty experienced in getting a sale for calves after inoculation. This was finally effected at a heavy loss. The primary success rate of the province during the first year of the triennium amounted to 90 80 per cent., during the second year to 90 65 per cent., and during the third to 91 78 per cent. These figures are an improvement upon those of the preceding triennium, namely, 87 14, 87 20 and 84 71, per cent., respectively.

The average primary success rate for Burma during the triennium is 91.05 per cent. A distinctive cause of defective results which prevails in Burma as compared with India is deterioration of lymph owing to length of time in transit, and there is no doubt that this takes place to a greater extent in this province than in India, where communications by rail and road are so much more advanced. The following statement for the last year shows the effect of delay in the transit and use of lymph:—

```
      Chin Hills
      ...
      ...
      ...
      77'76

      Papun
      ...
      ...
      83'7+
      Percentage of success in primary vaccination.

      Southern Shan States
      ...
      ...
      86'27
      primary vaccination.

      Upper Chindwin
      ...
      ...
      89'90
```

With these rates the average for the rest of the province for the same period,

namely, 92 12, is contrasted.

The present strain of vaccine at the Meiktila Depôt has been maintained for now over two years, being kept from deterioration by retro-vaccination, and by occasional inoculation of rabbits. Of these two devices Major Entrican considers that the latter gives the more reliable results: so much so that he now adopts it exclusively.

The difficulty of acquiring pure lanoline has much increased the task of keeping up a satisfactory strain of lymph. This difficulty was commented upon in the Vaccination Note for 1906-07. In spite of every effort to obtain a satisfactory product, the same difficulty recurred during last year and the Superintendent has but recently obtained a small quantity of suitable lanoline. The cause of this apparent deterioration in good brands of lanoline in transit, and storage in this climate, will be made the subject of investigation during the ensuing year, and an attempt will be made to devise some mode of preventing it. As matters stand, it is responsible for the fact that the major portion of the total lymph issued during the triennium has been glycernated or quinated. From analysis of 225,476 cases Major Entrican has ascertained the following percentage primary success rates for each variety of lymph:—

					1	er cem	•
Glycerinated lymph	• • •	•••	•••	•••	•••	93.8	
Quinated		• • •	•••	•••	• • •	.91.0	
Lanolinated	* * *	•••		•••	•••	388 .6	

From these and other comparative figures which show a similar result, he is inclined to consider glycerinated lymph superior to the quinated product, and does not propose to continue the issue of the latter to the same extent as hitherto, though on account of its superior preservative power, he proposes to continue its issue to outlying stations. Major Entrican has continued his experiments with regard to the effects on glycerinated and quinated Vaccines, of sealing the containing tubes by wax dissolved in Chloroform. The results of a series of carefully conducted experiments in which "controls" were at the same time carried out, have enabled him to conclude that this method considerably reduces the number of extraneous organisms, and does not appreciably affect the longevity of the lymph, as chloroform certainly does when used in the ordinary way. He considers that the continuation of these experiments on a large scale is fully warranted not only by his laboratory investigations, but also by the practical results obtained with Vaccines so sealed, in primary vaccination. With this view I concur, and consider that much credit is due to Major Entrican for the active scientific interest he has taken in the improvement and preservation of vaccine lymph for use throughout the province.

The Health Officer, Rangoon, reports that the lymph supplied from the Municipal Vaccine Depôt has been much better, and almost without exception, of good quality, during the last year of the triennial period under review. No attempt was made at the depôt to pass a strain of lymph through a series of calves. It was recognised that better results were obtained by getting paste from the Bangalore stock and vaccinating calves with it, than by attempting to start a local strain

of calf lymph.

Meiktila, became a teaching centre for Native Superintendents of Vaccination and Vaccinators in Burma. Between that date and the close of the triennial period under review twenty-six Native Superintendents of Vaccination and twelve prentice Vaccinators have undergone a complete course of training, lasting in all cases for six months. All successfully passed the qualifying examination, and were duly posted to districts for vaccination work. Of the above, four Native Superintendents of Vaccination and two apprentice vaccinators, having failed at the examination which concluded the course of training, were retained under training for a period of two months and one month respectively, at the conclusion of which they were re-examined and passed successfully.

Seven vaccinators left the depôt without leave before the course of training was concluded. At the close of the triennial period five Native Superintendents of

Vaccination and 13 vaccinators remained under training at the depôt.

The total number of Native Superintendents of Vaccination and vaccinators who have entered upon the course of training at the depôt, since training first commenced, has been 63. Much credit is due to the Superintendent, Major Entrican, for his able and painstaking performance of this gratuitous duty. The work has presented special difficulty, expressed in his remark that the depôt, not having been originally intended for training work, is little suited for it as regards accommodation.

17. From a study of the statistics included in this table it will be seen that out Appendix B. of a total of forty-four towns in which the Vaccination Act is in force, sixteen show a satisfactory grade of protection to infants by vaccination. The figures for Rangoon show an excess of 856 successful vaccinations on children below the age of one year, over the number available for the operation. This is explained by the fact that many children whose births are not recorded in municipal limits are brought into residence at Rangoon during the first year of life, by parents who are immigrants from outlying towns and districts; these children being vaccinated in common with the rest. A similar excess is shewn in the case of Ma-ubin, Kyaiklat, Myaungmya, Zalun, Myanaung, Tavoy, Mergui, Thatôn, Thayetmyo, Mandalay, Yamèthin, Pyinmana, Myingyan and Pakôkku. It probably arises from the same cause as in the case of Rangoon.

Form Medical Vaccination 19, devised in the office of the late Sanitary Commissioner, and sanctioned by Government during the year, will, when Civil Surgeons have become familiarised with it and understand its use, considerably facilitate

the submission of accurate statistics regarding towns in which the Vaccination Act is in force. The mistakes, however, at present made in its compilation, inter-

fere considerably with its usefulness.

18. Vaccination equipment.—The proposed portable haversack for vaccinators, alluded to in last year's vaccination note, has been finally elaborated. The haversack and its contents are the joint result of the labours of the Deputy Sanitary Commissioner and of Captain Saigol, I.M.S., the best features of whose separate designs this equipment combines. Quotations for the manufacture of fifty of these haversacks have recently been asked for. Its issue will at first be restricted, in order to see in practical use, whether alteration or addition may not prove necessary before the haversack is issued to all district vaccinators in the province.

Proposals for a general reorganization of the Vaccination Department are at present under consideration, and will be submitted to Government during the

course of the ensuing year.

C. E. WILLIAMS, M.D., D.P.H., MAJOR, I.M.S., Supdt.-Genl. of Vaccination, Burma.

RANGOON, 29th May 1908.

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A.-VACCINATION

STATEMENT No. I .- Showing particulars of Vaccination in the

-		Popula- tion of	Average popula-	Average number of vacconators	er l			Average number of per- sons		PRIMAI	RY VACCI	NATION.	
No	Circles and Districts.	district according to census of 1901.	tion per square mile.	employ ed throug out th year.	h-	Total number of persons vaccinated.			Total.	Under one year.	One and under six		Un- known.
_				5	_	6		7	8	9	years.	11	12
1	2	3	4	3	1			1	1		10	1	12
	ARAKAN DIVISION.	493 000	04	10	1	Female:		1,851	17,397	1,534	7,118	15,077	609
1 2	Hill Tracts, Northern	00,699	94	10		1		737	1,369	2	158	1,191	21
3	Kyankpyu	168,827	38 24	6 3	4,073	3,675	7,748	1,291 1,068	7,239 3,144	849 192	2,600 1,345	5,795 2,764	567
*	Total	FC2 102	41	21	16,567	14,369	30,936	1,473	29,149	2,577	11,221	24,830	1,197
	PEGU DIVISION.												,
5 6 7 8 9	Rangoon Hanthawaddy Pegu Tharrawaddy Prome	. 467,537 . 3.9,572 . 395,570	8,996 155 79 139 125	3 6 8 8	2,203 4,504 4,138	2,40 8 4,428 4,398	4,606 8,932 8, 5 36	10,254 768 1,117 1,067 1,053	6,402 3,705 8,762 8,510 11,566	3,664 607 1,859 2,375 3,384	1,139 1,908 5,199 4,634 5,683	5,443 3,064 8,171 7,718 10,616	752 92 246 81 466
	Total	7 020 000	139	37	44,684	20,792	65,476	1,770	38,945	11,889	18,593	35,012	1,637
	IRRAWADDY DIVISION.												
10 11 12 13 14	Ma-ubin Pyapón Bassein Henzada Myaungmya	. 224,939 391,427 . 484,653	173 106 95 169 105	4 6 10 15 7	1,178 7,121 7,912	1,106 6,222 7,011	2,344 13,343 1 4,923	556 591 1,334 995 1,349	1,951 2,242 12,764 14,372 9,201	788 718 3,039 3,641 1,233	811 1,332 6,490 6,563 5,200	1,861 2,078 13,854 11,773 8,194	32 42 510 1,552 582
	Total	1,663,669	124	42	22,231	20,043	42,274	1,007	40,530	9,419	20,396	35,760	2,718
	Tenasserim Division.												
15 16 17 18 19 20	Amherst Tavoy Mergui Toungoo Thatôn Salween	109,979 88,744 279,315 343,510	43 2, 9 45 63 14	9 5 4 7 6 1	13,622 4,729 3,694 4,779 5,143 758	9,127 5,746 3,5~4 3,310 5,479 522	22,149 10,475 7,198 8,089 10,527 1,230	2,461 2,05 1,800 1,156 1,755 1,280	20,3 '4 6,980 7,172 6,829 10,181 824	2,434 2,245 810 1,697 2,447	7,830 2,887 2,731 2,586 3,894 170	18,047 6,183 6,491 5,935 8,789 690	778 378 119 353
	Total	1,159,558	32	32	32,030	27,638	59,718	1,966	52,32)	9,648	19,607	46,085	1,638
	MANDALAY DIVISION.												
21 22 23 24 25	Mandalay Bhamo Katha Ruby Mines Myitkyina	366,507 79,515 176,223 87,694 67,399	173 19 25 16 6	10 4 2 4 2	7,377 2,015 2,250 1,598 743	6,621 1,882 2,133 1,601 623	13,998 3,897 4,383 3,199 1,369	1,400 974 2,192 800 685	12,493 3,513 4,371 2,987 1,369	6,156 1,510 7.5 980 164	5,202 1,277 2,311 1,245 643	1,831 3,242 4,080 2,698 1,195	16 189 30 16 23
	Total	777,338	26	22	13,986	12,860	26,845	1,220	21,733	9,535	10,633	23,046	274
	SAGAING DIVISION.												
26 27 28 29	Shwebo Sagaing Lower Chindwin Upper Chindwin	286,891 282,653 276,383 151,551	51 152 79 8	8 6 6 6	5,025 8,848 7,636 5,019	5,219 10,199 8,174 5,434	10,244 19,047 15,810 10,453	1,281 8,175 2,635 1,742	9,845 16,840 15,247 10,453	1,818 8,700 4,269 651	5,492 7,053 8,4:4 5,091	7,823 15,753 14,724 8,812	536 288 19 651
	Total	1,000,483	33	26	26,528	29,026	55,554	2,137	52,385	15,4 38	26,133	47,112	1,494
	MAGWE DIVISION.	000 700											
30 31 32 38	Thayetmyo Pakôkku Minbu Magwe	239,706 356,489 233,377 246,703	50 57 71 85	8 6 7 8	7,556 8,155 3,5 0 6,088	7,486 7,303 3,615 6,741	15,042 15,458 7, 95 12,829	1,880 2,576 1,028 1,664	14,416 14 182 7,125 12,458	1,828 2,107 1,998 3,094	4,401 5,913 3,751 7,959	9,600 11,771 6,437 11,291	2,121 1,618 95 446
	Total Meiktila Division.	1,076,280	63	29	25,379	25,145	50,524	1,742	48,181	9,027	22,024	£9,0£9	4,280
34 35 36 37	Meiktila Yamèthin Kyauksè Myingyan	252,305 243,197 141,253 353,052	116 57 111 114	5 7 3 7	4,267 5,444 2,635 7,6:5	4,500 5,765 2,961 8,135	8,767 11,209 5,646 15,760	1,753 1,601 1,982 2,25 i	8,676 11,075 5,430 14,675	1,224 4,138 3,003 3,920	6,8 54 5,779 2,016 7,568	8,190 10,083 5,019 12,856	169 435 95 41 6
	Total	992,807	91 '	22	20,021	21, 61	41,382	1,881	39, 906	12,285	21,717	36,148	1,115
38 39	SHAN STATES. Northern Shan States Southern Shan States	321,(90 816,354	22 19	8 11	1,293 5,063	1,158 5,163	2,451 10,231	306 930	2,359 10,188	29 1,660	1,381 4,860	1,939 8,733	85 59
	Total	1,137,444	20	19	6,361	6,321	12,682	667	12,547	1,689	6,211	10,677	144
	CHIN HILLS.												
40	Chiu Hills	87,189	11	3	1,383	627	2,010	670	1,835	2	35 5	1,210	280
1	GRAND TOTAL FOR 1907-08 GRAND TOTAL FOR 1906-07	10,477,508	45	253		178,232	337,402	1,531	340,532	81,509	156,970	298,979	14,777
	GRANDITOTAL FOR 1905-96	10,477,508 10,477,508	45 45	1	224,974 257 800		411,131		359,709	76,868		313,724	13,626
-1.	1,100,00		4.7	241	257,800	213,020	4,1,420	1,956	417,123	87,562	204,606	36₹,883	16,381

DEPARTMENT.

Province of Burma during the year 1907-08 (Paragraphs 1 to 7, 9 and 15).

	Re-	VACCINAT	ion.	PERCENTAGE OF SUCCESSFUL CASES IN WHICH THE RESULTS WERE KNOWN.		successfully vacci- per 1,000 of popula-	KNOWN	GE OF UN- CASES TO CASES.	Average ann Of persons si VACCINATE: PREVIOUS FI	UCCESSFULLY D DURING	AVERAGE AN BER OF DE SMALL-POX D VIOUS FIV	ATHS FROM URING FRE-	
Т	otal.	Success- ful-	Un- known.	Primary.	Re-vacci- nation.	Persons succe nated per 1, tion.	Primary.	Re-vacci- nation.	No.	Ratio per 1,000.	No.	Ratio per 1,000.	No.
	13	14	15	16	17	18	19	20	21	22	23	24	25
	1,112	816	98	89.81	80.47	33.00	3.20	8.81	9,657	20.05	42	•09	1
	105 503 61	87 41 6 11	40	88.57 86.86 87.91	82.86 88.70 18.03	61·9 4 36·79 £ 0 ·52	1·53 7·83	7.⊱6	891 5,598 1,870	43.08 33.16 50.56	36	21	2 3 4
-	1,787	1,330	133	88.83	80.65	31.33	4.11	7:72	18,015	23.64	92	•16	4
													•
2	4,359 901 170	11,433 278 99	5, 5 05 178 3 4	96·34 84·80 95·95	60·64 38·45 72·79	66.93 7.15 24.35	11·75 2·43 2·81	22.60 19.76 20 00	10,002 3,645	40.79 7.68	427 575	1·74 1·21	5 6
	26 1,075	7 461	1 239	91·56 95·64	28·00 54·49	19·53 30·23	•95 4·03	3.85 21.30	10,474 12,372 16,164	30·84 31·28 44·19	276 341 200	•67 •87 •55	6 7 8 9
-	6,531	12,278	5,947	93.85	5 9·65	25.97	4.20	22:42	52,657	28.92	1,772	•97	
	272	198		96.98	72.79	7.27	1.64		6.149	12:32	.05		
	102 579	41 205	12 7 4	94· 4 5 96·74	45.56 40.59	9·42 30·81	1.87 4.00	11·76 12·78	6,143 * 16,002	* 40·88	465 *	* 93 * •61	10 11 12
	_551 240	262 117	153 8	91·83 95·07	65.83 50.43	24·84 29·75	10:30 6:33	27·77 3·33	36,356 9,023	75·03 31·24	£04 275	•63 •95	13 14
-	1,744	823	24	94.57	54.93	21.99	6.71	14.16	67,529	40.59	1,282	•77	-
	1,825	917	179	92.33	55.71	63.18	3.83	9.81	16,986	56.59	98	•33	15
	2,495 26 1,260	1,374 9 623	195 100	93.65 92.03 91.65	41.64 34.62 53.71	68·71 73·24 23·43	5·42 1·66 5·17	5·58 7·91	9,787 4,634	88·99 52·22 29·16	12 115	·01 •14	15 16 17
	346 446	218 19.2	9	85·84 83·74	- 63·01 43·94	26·07 23·31	1.20	2.02	8,146 4,684 672	13.64 17.76	133	•43	18 19 ·20
	7,398	3,333	483	90.93	48.50	42.62	3.13	6:53	44,909	38.43	362	•33	
	1 50%	1,023		94.82	67.97	35.07	.10		11 600	00.44	110		
	1,505 384 12	188 7	40	97 · 53 93·99	5 4 ·65 58·33	43·14 23· 1 9	5·38 •69	10.42	11,888 3,140 2,361	32·44 39·49 13·40	113	*33	21 22 23
	212	191	4	90·81 88·78	91.83	32·94 17·73	1.68	1. 89	2,5 15 1,003	23.68 14.96	***	•••	24 25
_	2,113	1,409	41	94.22	68.10	31.46	1.11	2.08	20,912	26.90	113	•••	
		,											
	399 2,207 563	1,272 380	19 131	84·04 95·17 96·69	51.05 61.27 67.50	27·94 60·23 54·65	5·44 1·71 ·12	4·76 5·94	12,478 11,799 11,514	43·49 41·74 41·66	28 76 18	·10 •27	2 6 2 7 2 8
-	•••			89.90		57.02	6.53		8,934	57.81			2 9
_	3,169	1,846	150	92.57	61.15	48.93	2.85	4.73	44,726	44.70	123	•15	-
	626 1,276	355 420	32 477	78·08 93·69	59·76 52·57	41·53 34·20	14:71	5·11 37·38	14,677	61·23 18·22	25 46	•10 •15	30 31
	70 371	54 224	1 64	91·56 94·00	78·26 72·96	27·81 46·67	11.41 1.33 3.58	1·43 17·25	6,497 6,526 10,628	27.97 43.08	13 27	•07 •11	- 32
	2,843	1,053	574	89 06	59.53	37:31	8.88	24.50	38,328	35.61	112	11	- 1
	01	= 4		96.27	64.29	32.67	105	T-00	C OAC	35 ·4 6	45	•10	24
	91 134 166	54 95 149	7 27 7	94·77 93·20	88·79 93·71	41.85 36.59	1.95 3.93 1.73	7·69 20·15 4·22	8,946 9,640 4,646	39 ·64 32·89	47 67 2	·19 ·28 ·01	36
	1,035 1,476	362	135 176	93.19	38.11	37.12	1.73 2.83 2.79	12:44	33,860	29·85 34·11	98	•27	37
-	1,170						2 13	11 32	30,000	0111			
	92 4 3	86 27		85·27 86·27	93·48 62·79	6·31 10·74	3·60 •58		5,313 7,704	16·55 9·44	•••		38 39
-	135	113		80.08	83.70	9.49	1.15		13,017	11.44			} =
					F0.0-	1400	11.0	05.01	1.035	10.47			10
-	174 16,870	90 22,935	7,806	77·76 91·78	70·87 58·71	20.72	15.25	27.01		31.98			40
	51,402	21,246	10,869	90.65	52.39	31.97	1	21.14	1	31.49			
	54,297	21,497	13,929	90.80	53.25	36.78	3.93	25.65	326,127	32.57	•	•••	

been included in Ma-ubin. Pakokku Chin Hills have been excluded,

A.—VACCINATION STATEMENT No. II.—Showing the cost of the Department in the

										Expendi	TURE	•	
No.	Circles and Distr	icts.	European super-	Pay.	Native supervi-	Pay.	Vaccinators.	Pay.	Clerks.	Pay.	Peons, etc.	Pay.	Total payof establishment.
1	2		3	4	5	6	7	8	9	10	11	12	13
	ARAKAN DIVIS	10N•		Rs. A.	P.	Rs. A.	P.	Rs. A.	P.	Rs. A. P.	1	Rs. A. P.	Rs. A. P.
1 2 3 4	Akyab Hill Tracts, Northern Kyaukpyu Sandoway	Arakan	•••	•••••	2 *1 *1	900 0	0 10 2 6 3	2,771 0 525 0 1,518 10 983 6	8 0 1	•••••	•••	•••	3,671 0 8 525 0 0 1,518 10 1 983 6 0
	Total	•••			4	900 0	0 21	5,798 0	9	•••••			6,698 0 9
	Pegu Divisio	N.											
5	Rangoon	•••		•••••			3	3,190 0	о	•••••	4	5 72 2 0	3,762 2 0
6 7 8 9	Hanthawaddy Pegu Tharrawaddy Prome	***		•••••	1 1 1 1	400 0 274 3 760 15 600 0	0 6 1 8 6 8 0 12	2,200 10 1 2,469 8	5 0 7 9	••••••		•••	1,957 0 5 2,474 13 11 3,170 8 1 2,576 9 9
	Total	•••	•••		4	1,975 2	7 37	12,393 13	7	••••	4	572 2 0	14,941 2 2
	IRRAWADDY DIVI	SION.											
10 11	Ma·ubin Pyapôn	•••	•••	•••••	1 1	600 0 600 0	0 4 6		2			•••••	1,740 2 10 2,397 5 2
12 13 14	Bassein Henzada Myaungmya	•••		•••••	1 1	835 0 600 0 598 0	0 10 0 15 0 7	3,693 11	8 5	•••••		•••••	3,375 9 8 4,293 11 5 2,448 0 0
12	Total	•••			- 6		0 42	11,026 13	1				14,259 13 1
	TENASSERIM DIV	ISION.			-		_		-		<u> </u>		
15 16	Amherst Tavoy	••		******	2	1,255 0 600 0	0 9 5	2,397 4 1,425 14	9 1	120 0 0	1	•••••	3,772 4 9 2.(25 14 0
17 18	Mergui Toungoo	•••		•••••	1 1	300 0 600 0	0 4 0 7	971 1	2			•••••	2,025 14 0 1,271 1 2 2,099 11 2
19 20	Thatôn Salween	•••	• • • • •		1	450 0	0 6	1,772 0	0	*****		••••	2,222 0 0 300 0 0
	Total	•••			6	3,205 0	0 32	8,365 15	1 1	120 0 0	1		11,690 15 1
	MANDALAY DIVIS	ion.			_				_		_		
21 22	Mandalay Bhamo	•••			1	450 0	0 10	3,653 7 915 14	2	•••••		•••••	4,103 7 2 915 14 0
22 23 24	Katha Ruby Mines	•••	Ť	•••••	*1		2 4	557 0 1,248 11	6			*****	557 0 0 1,243 11 6
25	Myitkyina	•••			-		_ 2	459 2	6				459 2 6
	Total SAGAING DIVIS	•••			$ \begin{vmatrix} 2 \\ - \end{vmatrix}$	450 0	0 22	6,829 3	2		<u> ::-</u>		7,279 3 2
26	Shwebo				1	600 0	0 8	1,865 11	1				0.407.11.1
27 28	Sagaing Lower Chindwin	•••	•••	•••••	*1 1	600 0	0 6	1,764 12 1,679 8	0	******		*****	2,465 11 1 1,764 12 0 2,279 8 0
29	Upper Chindwin	•••			- * <u>1</u>		6	1,686 6	5				1,686 6 5
	Total	•••			- 4	1,200 0	0 25	6,996 5	6				8,196 5 6
30	MAGWE DIVIS				1	550 0	0 8	2,303 5	3				2072 7 0
31 32	Pakôkku Minbu	•••		******	1 1	525 1 350 0	2 6		4	•••••	• • • • • • • • • • • • • • • • • • • •		2,853 5 3 2,360 14 6 2,238 4 7
38	Magwe	•			$\frac{\hat{2}}{2}$	705 0	0 7 8		0				2,814 0 2
	Total		<u> </u>		- 5	2,130 1	4 29	8,135 7	2				10,266 8 6
84	MEIKTILA DIVIS Meiktila Vaccine Dep		1	600 0	0 1	1,437 2	3	†67 4 9 1	1 2	1,172 1 6		4.070	F 100 14 0
3 5 36	Meiktila Yamèthin	•••				‡ 1,5 10 14 739 13	0 5 7	1,274 7	8	1,172 1 6	•••	1,256 1 0	5,139 14 8 2,785 5 2,567 10 5
37 3 3	Kyauksèn Myingya	•••	•••	•••••	*1	•••••	0 7	903 0	0	•••••		*****	903 0 0 2,174 10 4
	Total	•••	1	600 0	0 6	4,137 13	3 22	6,404 9	4 2	1,172 1 6		1,256 1 0	
	Shan States	•							1				
89 4 0	Northern Shan States Southern Shan States	***	•••	•••••	§5	950 0	0 8		8	•••••			2,550 7 8 1,887 13 8
	Total	•••		•••••	7	950 0	-\	0 (00)	4				4,438 5 4
41	Chin Hills	•••					3	711 0	5				711 0 5
	GRAND TOTAL FOR 190	7-03	1	600 0	0 44	18,181 1	2 253	70,150 9	5 3	1,292 1 6	12	1,828 3 0	92,051 15 1
	GRAND TOTAL FOR 190	6-07	1	600 0	0 2	14,935 1 1	0 244	68,142 7		720 0 0			86,260 12 5
	GRAND TOTAL FOR 190	5-06	1	600 0	0 16	7,672 0	0 24 1	66.880 2	5 2			1,807 0 0	

† Apprentice

‡ This amount includes pay of Native Superintendents of Vaccination of certain

* Under training

DÉPARTMENT.

Province of Burma during the year 1907-08 (Paragraphs 13 and 14).

		• • • • • • • • • • • • • • • • • • • •			PAID FROM				ess-	1	
Travelling allowance.	Contingen cies.	Total cost.	Imperial Funds.	Provincial Funds.	Local Funds.	Municipali- ties.	Native States.	Total.	Number of all successful vectorations and re-vaccinations.	Average cost of each successful case.	No.
14	15	16	17	18] 19	20	21	22	23	24	25
Rs. A. P.	Rs. A. P	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.		Rs. A. P.	
1,294 10 3 117 14 0		5,172 13 8 642 14 0		612 14 0	4,788 13 8	384 0 0	*****	5,172 13 8 642 14 0	15,893 1,281	0 5 2 0 8 0	1
1,004 7 0 393 3 0	*****	$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$			2,403 1 1 1,257 10 0			2,523 1 1 1,407 10 C	6,211 2,775	0 6 6	3
	212 0	0.546 0.0			2 152 0 0	6)4 0 0		9,746 6 9			
2,815 2 3	233 3 9	9,746 6 9		642 14 0	8,479 8 9	624 0 0		9,740 0 8	26,160	0 6 0	
54 10 6 1,458 15 6 998 14 0 1,315 14 6 1,071 4 6	1:3 :2 4	7,476 9 6 1 3,599 12 3 3,473 11 11 4,486 6 7 4,647 14 3	•••••	451 12 0	3,5°9 12 3 1',863 11 11 4,486 6 7 3,684 14 3	610 0 0	*****	7,476 9 6 3,599 12 3 3,473 11 11 4,486 6 7 4,647 14 3	3,342 8,270 7,725	0 7 1 1 1 3 0 6 9 0 9 4 0 6 9	
4,893 11 0	3,843 9 4	23,684 6 6		451 12 0	14,634 13 0	8,597 13 6	•••••	23,684 6 6	47,290	0 8 0	
539 5 0 641 5 6 1,600 2 6 1,431 1 9 1,109 8 0 5,321 6 9	60 0 C	3,038 10 8 4,975 12 2 5,729 13 2 3,577 8 0			2,339 7 10 2,487 10 8 4,2.8 10 2 4,011 2 10 3,320 12 0 13,397 11 6	551 0 0 767 2 0 1,638 10 4 256 12 0	•••••	2,539 7 10 3,038 10 8 4,975 12 2 5,719 13 2 3,577 8 0	2,119 12,039 12,035	1 2 2 1 6 11 0 6 7 0 7 7 0 6 11 0 8 7	10 11 12 13 14
1,442 12 0 642 12 0 763 15 3 1,025 3 3 1,186 1 3 131 0 0	15 9 0 	5,215 0 9 2,668 10 0 2,040 0 5 3,140 7 5 3,408 1 3 431 0 0	•••••		4,165 0 9 2,195 10 8 1,810 2 1 2,660 7 5 3,148 1 3 431 0 0	472 15 4 229 14 4 480 0 0 260 0 0		5,215 0 9 2,663 10 0 2,040 0 5 3,140 7 5 3,403 1 3 431 0 0	18,964 7,557 6,500 6,558 8,957 882	0 4 5 0 5 8 0 5 0 0 7 8 0 6 1 0 7 10	18 19
5,196 11 9	15 9 0	16,903 3 10			14,410 6 2	2,492 13 8		16,903 3 10	49,418	0 5 6	
933 12 6 295 9 3 269 13 10 319 7 0 193 13 3 2,012 7 1c	22 3 4	1,211 7 3 826 13 10 1,563 2 6 652 15 9		2,7:5 0 8 931 9 3 826 13 10 977 9 0 652 15 9 6,124 0 6		2,324 6 4 279 14 0 2,604 4 4	535 9 6 585 9 6	5,059 7 0 1,211 7 3 \$26 13 10 1,563 2 6 652 15 9 9,313 14 4	3,430 4,037 2,889	0 6 4 0 5 8 0 3 3 0 8 8 0 8 9	21 22 23 24 25
961 0 6 1,044 14 6 591 9 9 893 11 10 3,491 4 7		3,426 11 7 2,809 10 6 2,871 1 9 2,580 2 3 11,687 10 1		3,186 5 9 2,809 10 6 2,553 1 9 2,500 2 3 11,119 4 3		2}0 5 10 318 0 0 553 5 10		3,426 11 7 2,809 10 6 2,871 1 9 2,580 2 3 11,687 10 1	8,017 17,025 15,104 8,812 48,958	0 6 10 0 2 8 0 3 0 0 4 8	26 27 28 29
1,396 5 0 1,022 1 6 509 9 0 919 3 5 3,847 2 11		4,249 10 3 3,383 0 0 2,747 13 7 3,733 3 7		3,130 0 0 2,147 13 7 2,953 3 7 8,231 1 2	3,628 7 3 3,628 7 3	621 3 0 253 0 0 600 0 0 780 0 0		4,219 10 3 3,583 0 0 2,747 13 7 3,733 3 7 14,113 11 5	9,955 12,191 6,491 11,515 40,152	0 6 10 0 4 5 0 6 9 0 5 2 0 5 7	30 31 32 33
262 7 6 1,135 4 0 1,133 15 6 476 10 0 821 2 9 3,829 7 9	7,436 10 0	3,920 9 8 3,701 9 11 1,3,9 10 0 2,997 11 1		12,839 0 2 3,909 11 8 8,077 9 11 1,379 10 0 2,464 7 1 23,670 6 10		10 14 0 021 0 0 £33 4 0 1,168 2 0		12,889 0 2 3,920 9 8 3,701 9 11 1,379 10 0 2,997 11 1 24,838 8 10	8,244 10,178 5,168 13,218	0 7 7 0 5 10 0 4 3 0 3 8 0 ·10 10	34 35 36 87 38
2,2°3 14 0 814 1 0	•	4, 83 4 5 8 2,701 14 8	•••••	1,914 13 9 2,701 14 8	•••••	••••	2,889 7 11	4,834 5 8 2,701 14 8	2,025 8,765	2 6 2 0 4'11	39 40
3,097 15 0		7,5.6 4 4		4,646 12 5			2,889 7 11	7,536 4 4	10,790	0 11 2	
408 1 0		1,119 1 5		1,119 1 5		•••••		1,119 1 5	1,300	0 13 9	41
		1,33,604 7 4		bruk	57,550 14 8			1,38,634 7 4		¢ 6 11	
		1,27,528 5 9 1,14,463 15 3								0 6 1	
2,000 10 0	11,522 2 2	-, (1) 203 10 5	1,075 10 1	00,000	-0,120 0 11	20,102 12 0	0,101 11 0	-,12,100 10 3	,00,000	0 4 9	

other districts for the period of their training at Meiktila.

at Meiktila.

training class.

B.—DISPENSARY

. , , ,

STATEMENT No. III .- Showing Dispensary Vaccination in the

No.	Districts.				Districts.		Districts.		Districts.		Number of dispensaries in each district to which a vaccinators attached to dispensaries during the year. Number of dispensaries in each district to which a vaccinators attached to dispensaries during the year.		Total number of persons vaccinated.	Average number of persons vaccinated by each vaccinator.	Total.
1		2			3	4	5		7						
	AR	AKAN DI	vision.						•						
1	Akyab Hill Tracts, North	harn Arai	· · · · · · · · · · · · · · · · · · ·	•••	****	**	•••••• •6		₃₂						
3 4	Kyankpyu		•• •••	•••	*****	•••••	1,753 324	•••••	1,532 253						
-	Sandoway	•	•••	•••	•••										
			Total	•••	•••		2,113		1,817						
_		egu Div	ISION.												
5 6	Rangoon Hanthawadd y			•••	*****	•••••	2,908	101	545 00						
7 8 9	Pegu Tharrawaddy Prome	•	•• •••	***	•••••	*****	99 5±	***	99 52						
8	Prome	•	••	•••	•••••	*****	******		*****						
			Total	•••	*****		₿,061		696						
		WADDY	Division.												
10	Ma-ubin Pyapôn			•••		••••	1,737	*****	172						
12 13	Bassein Henzada	•	•••	•••	*****		211 1,708	• ••• ••	66 693						
14	Myaungmya		••	***	•••••	****	1,230	*****	73						
			Total	•••		•••••	4,886	-	1,004						
15		ASSERIM I	Division.						00						
16	Amherst Tavoy		•• •••	•••	*****	•••••	26 285		26 216						
17 18	Mergui Toungoo		•• •••	•••	•••		38 18	***	35 9						
19 20	Thatôn Salween		•• ••	•••	******		26 17	*****	25 17						
			Total	•••			410		328						
	MA	ndalay]	Division•												
21 22	Mandalay Bhamo		•••	•••			207 27		206 27						
23 24	Katha		••	e10		*****	349 6		51 6						
$2\overline{5}$	Myitkyina		•••	•••	•••••		401		199						
1			Total	•••			990		489						
		GAING D	IVISION.												
26 27	Shwebo Sagaing		•••	•••	*****		270 180	•	225 180						
23 29	Lower Chindwin Upper Chindwin	•	•••	•••		•••••	61 562		61 519						
			Total	***	••••		1,073		98 5						
	MA	GWE DI	VISION.												
30 31	Thayetmyo Pakôkku		•••	***	•••••	******	1,436		860 1,335						
32	Minbu	•	***	•••	*****	*****	1,482		*****						
	magwe		Total	***	•••••		2,918		2,195						
	Me	iktila I	•	•••				-							
34	Meiktila		•••	•••	*****	•••••	723	•••••	196						
35 36	Yamèthin Kyauksè		•••	•••	*****	******	78 21	• • • • • • • • • • • • • • • • • • • •	78 21						
87	Myingyan		 T-4-1	***			186	1	180						
		SHAN ST	Total	•••	*****	-	1,008		475						
38	Northern Shan S						223		183						
39	Southern Shan S		•••	•••	******	******	183	••••	181						
			Total	•••			411		364						
40	Chin Hills		•••	***		*****	2,261	•••••	2,090						
			FOR 1907-08	•••			19,131		10,4 43						
			FOR 1906-07						10,690						

VACCINATION.

Province of Burma for the year 1907-08 (Paragraph 10).

	PRIMARY V	ACCINATION.		F	CE-VACCINATIO	N.	SUCCESSFU WHICH TE	TAGE OF L CASES IN HE RESULTS KNOWN.	Percentunknown Total	CASES TO	
Under one	One and under six years.	Total of all ages.	Unknown.	Total.	Successful.	Unknown.	Primary.	Re- vaccina- tion.	Primary.	Re- vaccina- tion.	No
8	9	10	11	12	13	14	15	16	17	18	19
	1										
74	 14 528 	25 1,294 241	7 18 4	 221 7 1	2 157 26	2 34 	100·00 95·99 96·44	100·00 83·96 26·62	21·88 12·01	50·00 15·38	1 3
74	542	1,563	191	293	185	36	(6.13	71.15	10.21	12.16	
66 40 9	161 41 30	487 95 46	9 6	2,363 2	1,901 2	8 	90.86 95.96 100.00	80·72 100·00	1:65 11:54	 	55 66 77 88 99
115	232	628	15	2,365	1,903	8	92.22	80.74	2.16	•34	
15 156	8 191	172 *** 42 573 56	 20 279 2	1,565 145 1,015 1,157	729 52 351 298	27 51 3 121	100-00 91·30 90·10 78·87	47·40 55·32 34·68 28·76	30·30 40·26 2·74	1.73 35.17 .30 10:46	10 11 12 13 14
155	225	643	301	3,882	1,430	202	91.47	38.86	29 98	5.50	
1 16 1 5 15	16 9 6	25 32 30 9 22 16	₁₈₄	69 3 9 1	20 1 2 1	 	96·15 100·00 85·71 100 00 88·00 100·00	35·71 33·33 22·22 100·00	85•19 5·88	18*8 4	18 16 17 18 19 20
38	33	134	185	82	24	13	93•71	34.78	56.40	15 85	
62 4 4 43	125 10 2 2 91	193 25 43 6 181	7 5 9	208 202	1 178 149	 31 	96.98 92.59 93.48 100.00 95.26	100·00 64·79 73·76	3·40 9·80 4·52	10.40	21 22 23 24 25
113	230	448	21	501	323	31	95.73	68.72	4.29	6.19	
18 104 3 56	169 72 49 26 J	196 176 60 481	18 1 9	45 43	33 33	•••	94·69 98·32 98·36 94·31	73·33 76·74	8·00 •55 1·73	•••	26 27 28 29
181	5 59	913	28	88	66	•••	95.40	75.00	2.84		
145 56 	4 03 370 	808 1,314 	* 15 8 	576 1 4 7	447 139 	2	95·62 99·02	77.87 94.56	1·74 ·60 	·35 	30 31 32 33
201	773	2,122	23	723	586	2	97•70	81.28	1.05	•28	
31 61 5 87	115 13 13 80 221	172 78 18 170 438	1 23	527 6	290 4 294	206	98.85 100.00 90.00 94.44 96.90	90·34 66·67 89•91	11·22 4·7 	39°C9 38°65	34 55 86 37
101			23		-01						
11 19	111 111	87 150	85 30	45 2	33 2		88•78 99•34	73•33 100·00	46·45 16·57		3) 33
30	157	331	1,718	171	35 65	30	95·18 	74·47 46·10	31·59 82·20	17:54	40
1,097	3,100	7,457	2,620	8,688	4,911	528	95.32	60.18	25.09	6.08	30
690	2,844 3,420	7,180	2,723	7,831	4,246	676	90.12	59.34	25.47	8 63 8·15	

COMPARATIVE STATEMENT No. IV.—Showing the number of persons primarily vaccinated Burma in each of the under-

									· · · · · · · · · · · · · · · · · · ·		:	Persons pr	RIMARILY
Establ	ishmen	ts.		Total	Number success- fully vac- cinated.	Total number.	Number successfully vaccinated.	Tetal number.	Number successfully vaccinated.	Tetal number.	Number success-fully vaccinated.	Total	Number success-fully vaccinated.
				1893-99.		1899-1900.		1900-01.		1901-02.		1902-03.	
1			2 .		3		4		5		1	6	
									[1			1.00
Government	•••		•••	116,621	106,892	192,193	112.483	106,629	95,392	94,530	83,082	120,384	101,166
Municipal	•••		•••	81,987	78,636	72,287	69,705	62,338	58,008	52,227	46,695	55,352	47,049
Local Funds				238,334	228,367	260,518	243,803	215,111	193,789	181,107	166,233	165,218	149,585
Native States	•••			2,108	1,941	1,764	1,631	1,574	1,420	1,822	1,553	7,053	5,451
Dispensary	•••			8,209	7,278	6,033	5,421	6,653	4,229	3,971	3,033	6,622	5,038
	ARMY.												
Europeans	,			53	42	28	19	23	10	20	9	25	11
Natives	•		•••	5 4 6	36 3	782	314	891	207	114	67	359	283
		Total	***	447,858	423,519	463,605	438,406	392,719	358,055	333,791	300,722	355,013	308,583

STATEMENT No. V.—Showing particulars of

							TOTAL NUMBER INSPECTED					
No.		Districts.				BER OF PERSONS CINATED.		Sanitary Com- Civil Surgeons,	By Native Superintendents or other Inspecting Officers			
					Primary.	Re-vaccination.	Primary.	Re-vaccination.	Primary.	Re-vaccination		
1		2			3	4	5	6	7	8		
1	Akyab	•••			17,3.7	1,112	1,157	478	7,891 25	46		
2	Hill Tracts, No				1,401 8,771	730	1.072	2(9	1,951	188		
3 4	Kyaukpyu Sandeway	•••	•••	•••	3,397	i32	855		518	87		
5	Rangoon	•••	•••		6,402	24,359	724	2,000 2,579	$\frac{4,429}{2,200}$	12,632 2,086		
6	Hanthawaddy	•••	•••	•••	4,250 8,861	3,264 170	1,198 772	2,579	2,197	34		
7 8	Pegu Tharrawaddy	•••	•••	eu.	8,562	28	219		4,035	2		
9	Prome	•••	•••	•••	11,566	1,075	1,526	104	3,731	663		
10	Ma-ubin	***	•••		2,123 $2,242$	1,837 102	703 270	1,567	2,012 2.083	1,801		
11	Pyapôn	••	•••	•••	1 2 ,830	714	914	401	5,901	632		
12 13	Bassein Henzada	•••	•••	•••	15,065	1,566	522	801	7,093	547		
14	Myaungmya	•••	•••	•••	9,274	1,397	1.584	1,034	5,585 16,804	196 1,263		
15	Amherst	•••	•••		20,350 $7,196$	1,825 3,564	1.154 2,648	610	5,536	1,263		
16 17	Tavoy Mergui	•••	***	•••	7,190	29	937	24	2,484	13		
18	Toungoo	•••	••	•••	6,838	1,2(9	110	91	3,452	867		
19	Thatôn	***	•••		10,206	347 446	451 90	15	5,056 ~ 6			
20	Salween	•••	***	•••	12.699	1,506	986	79	7,229	346		
$\begin{array}{c} 21 \\ 22 \end{array}$	Mandalay Bhamo	•••	•••	***	3,540	3.4	284	11	142	9		
23	Katha	•••		•••	4,422	310	1,546	236	51	298		
24	Ruby Mines	***	•••	***	2,993 1,538	212 202	415 286	******	250	202		
25 26	Myitkyina Shwebo	•••	***	•••	10,670	444	841	43	3,776	52		
27	Sagaing	•••	•••	44.	17,020	2,207	2 4 11	221	*****	•••••		
28	Lower Chindu	/in	•••	•••	15,308	563	1,735	194	6,999 5 1 0	54 43		
29	Upper Chindy		***	***	10,972 15,276	1,202	1,493 1,749	448	8,929	704		
30 31	Thayetmyo Pakôkku	•••	•••	•••	15,517	1,423	2,646	536	4.909	235		
32	Minba	•••		***	7,125	70	883	1	2.957	5		
38	Magwe	•••	•••	***	12,458	371	1,093 4,354	338	3, 5 ₹3 1,591	180		
34 35	Meiktila Yamèthin	•••	* (1-4	***	8,872 11,153	618	1,874	132	3,684	2		
36	Kyauksè	•••	***	•••	5,501	166	1,062	******	178			
87	Myingyan	***	610	•••	14,855	1,091	4,470	618	9,506	146		
38	Northern Shar		***		2,542 10,369	137 45	1,719	9	2,385	68		
39 40	Southern Shar Chin Hills	i States		•••	3,926	345	41	3	439	131		
		FOTAL FOR		••	350,975	55,558	47,420	12,828	140,550	24,917		
	GRAND T	OTAL FOR	1906-07	•••	370,399	59,253	60,290	20,247	56,372	11,506		
	GRAND T				426,935	61,992	75,650	28,044	92,319	14,697		

and the number of those persons who were successfully vaccinated in the Province of mentioned official years (Paragraph 11).

VACCINATED.

Total number.	Number successfully vaccinated.	Total number.	Number successfully vaccinated.	Total number.	Number successfully vaccinated.	Total number.	Number successfully vaccinated.	Total number.	Number successfully vaccinated.	Establishments.
19	03-04.	19	04-05.	190	5-06.	190	06-07.	190	7-08.	
	7		8		9		10		11	
135,394	1(9,016	138,435	109,201	162,014	144,074	126,103	111,283	148,497	133,229	Government.
53,775	44,879	59,410	46,168	64, 883	52,398	59,352	48,431	48,060	41,811	Municipal.
179,917	160,516	166,339	141,626	181,999	160,428	167,418	148,271	138,772	119,609	Local Funds.
6,712	5,624	6,986	4,989	8,197	6,983	6,833	5,739	5,203	4,330	Native States.
8,924	6,915	9,516	7,152	9,812	7,272	10,690	7,180	10,443	7,457	Dispensary.
			}	1						Arm t.
	•••	25	14	66	58	24	14	59	36	Europeans.
3 80	222	379	215	30 4	183	281	143	408	279	Natives.
385,102	327,172	381,090	309,365	427,305	371,376	370,704	321,061	351,442	306,751	Total.

Vaccination verified by Inspecting Officers during the year 1907-08 (Paragraph 12).

	TAGE OF	Percent			AGE OF CASES F) TOTAL	SPECTIONS TO	RCENTAGE OF IN NUMBER V	Р£
N	REPORTED	SUCCESS F BY VACC	ve Superin- is or other ng Officers.	tendent	ity Sanitary oner or Civil geons.	Commission	ve Superin- ts or other ag Officers.	tendeni	ity Sanitary oner or Civil rgeons.	Commissio
	Re-vaccina-	Primary.	Re-vaccina-	Primary.	Re-vaccina-	Primary.	Re-vaccina- tion.	Primary.	Re-vaccina- tion.	Primary.
1	18	17	16	15	14	13	12	11	10	9
	80· 4 7 82·86	89 81	82.61	86.33	65.20	85*83	4.14	45·36 1·78	42.99	6.65
1	88.70	88 5 8 86 86	100·00 84·57	100°00 79°53	77.99	91.60	1.83 25.75	$\frac{178}{2228}$	28.63	12.22
	18.03	87.91	21.84	9 0·54	•••	94*39	65·91 (15.25		25.17
1	60· 64 33·45	96·3 4 84·80	61.88 78.81	99.01	55·70 79·02	87 85 92 92	51.86 63:91	69 ·1 8 51.76	8·21 79·01	11·3 1 35•25
	72.79	95.95	94.12	74.45 89 : 99	72 41	94.17	20 00	24.79	17.06	8.71
i		91.56	100.00	8 2 °26		94.52	7.14	47.13	9.67	2.56
1		95.64 96.98	55.05 50.31	€ 9 49 97•17	56°73 46°63	94·04 97·30	61.67 98.04	32·26 94·77	85.37	13 · 19 33· 11
	45.56	94 45	59.38	91.41		99.63	31.37	92.91	•••	12.04
		96.74	_ 40.20	94.93	41.15	97.35	87.29	45.09	55.39	7.36
	65·83 50·43	91 83 95·07	73-67 40-82	90 [.] 81 91 [.] 83	37•70 29• 4 9	94·44 88·57	34·93 14·03	47 ·08 60· 2 2	51·15 74·02	3 46 17 08
	55.71	92.33	56.33	88.28	25.00	90.04	6.1.21	82.57	44	5 ·67
		93.65	46.92	92.29	58·36	89.88	36.00	76.93	17:12	37.08 13.00
1		92 (3 91·65	53·85 61·59	90·72 90.85	41.67 45.06	85 66 72.73	44·83 68·32	34 47 50•48	82•76 7·17	1.61
	63.01	85.84		87.84		96 67		49.54		4.42
		83.74 94.82	78.03	100.00 91 67	40·00 83·14	78·89 97·97	22:97	·7i 56·93	3·36 5·25	10·58 7·76
		97.53	100.00	100.00	100.00	82.70	2:31	4.01	2.86	8.03
	58.33	£3.99	58 06	84.31	55.94	93.21	96.13	1.15	76.13	34.96
		90·81 88•78	7 3.76	91.60	•••	79·06 87·76	100.00	15.94	•••	13.87 18.2 4
	51.05	{ 4 ·0 4	76.92	85.27	58.14	85.09	11.71	37*50	9.68	8·3 5
1		95·17 96·69		02.90	54.30	96.39	9.59	45:00	10.01	14·17 11·33
		89.90	33·33 76·74	92·38 94·31	56•18	90·09 87 34	100.00	45.72 4.65	34.46	13.61
1	59.76	78.08	67.47	85.02	100.00	94.68	58-57	58.45	37.27	11.45
		93·69 91·56	65.96	92.16	61:01	99.17	16.51 7.14	31:64 41:50	37.67 1.43	$17.05 \\ 12.39$
	72.86	94·00	40.00 65.00	91·24 95·81	100·00 22·22	87·54 74·39	48.52	28:76	2.43	8.77
	61.29	96.27	57.58	97.42	88 76	98.28	10.68	28.76 17.93	54.63	49.08
	88.79	9 4 ·77 93·20	50.00	87·27 99 4 4	71.21	90 ·13 8 9· 83	1.49	33·U3 3·24	98.21	16.80 19.31
	38.1	90•16	60.93	80.39	37.38	80.45	13:38	63 ·9 .}	56 65,	30.09
,	93.48	85.27	77.94	76 32	100.00	86.60	49.64	17:31	6.56	10.86 1 6 58
	62·79 70·87	86-27 77-7	100·00 46 56	88·18 84·05	33.33	75·63 2·44	4·44 37 97	23·00 11·18	*87	1.01
	58.71	91.78	61:32	89.22	59.25	90.52	44.85	40.05	23.09	1 3·51
	52:39	90.65	51.11	88.23	58.43	89-20	19.42	15.22	34.12	16.28
5	0 53.25	90.80	44.77	87.22	54.25	96.25	23.71	21.62	33.62	17.72

APPENDIX A.

Showing the ratio per 10,000 successfully vaccinated and the mortality from small-pox by quinquennial periods for Lower Burma only (Paragraph 7).

C	Micial ye	ar•		Ratio per 10,000 successfully vaccinated.		inquennial mean.		Calendai	year.		Ratio per 10,000 of mortality from small-pox.	Quinquennial mean.	
	1			2	3		4				5	6	
1892-93	•••	***		257:91	6		1892	***	•••	•••	3.24)	
1893-94	•••	•••		303-46			1893	•••	•••	•••	6.83		
1891-95	•••	•••		353*83	}	71	1894	•••	•••	•••	3.85	}	4.20
1895-96	***	•••		448-91			1895	•••	***	•••	3.41		
1896-97	•••	•••		554.43	}		1896	•••	•••	•••	3.70)	
18 97-9 8	•••	•••		586.66	1		1897	•••	***	•••	4.32	1	
1898-99	•••	•••		652 47			1898	•••	•••	***	10.40		
1899-1900	•••	•••	•••	678.31	}	551 .68	1899	•••	***	•••	13.21	}	7.73
1900-01	•••	***		530.41			1900	•••	***	•••	6•76		
1901-02	•••	•••	•••	352*69	زا		1901	•••	•••	•••	4.45	j	
1902-03	•••	***	•••	328.04	1		1902	***		•••	2.82	j	
1903-04	•••	•••	•••	35 3•66			1903	•••	•••	•••	2.30		
1904-05	•••	•••	•••	324.89	}	350.34	1904	•••	•••	•••	2.38	}	6.3 8
1905-06	•••		•••	385·4 8			1905	•••	•••	•••	10.10	1	
1906-07	•••	•••	•••	35 9⋅61)		1906	•••	•••	•••	14.19	7	
1907-08		•••	•••	300.06		•••	1907	***	•••	•••	2.75		

APPENDIX B.

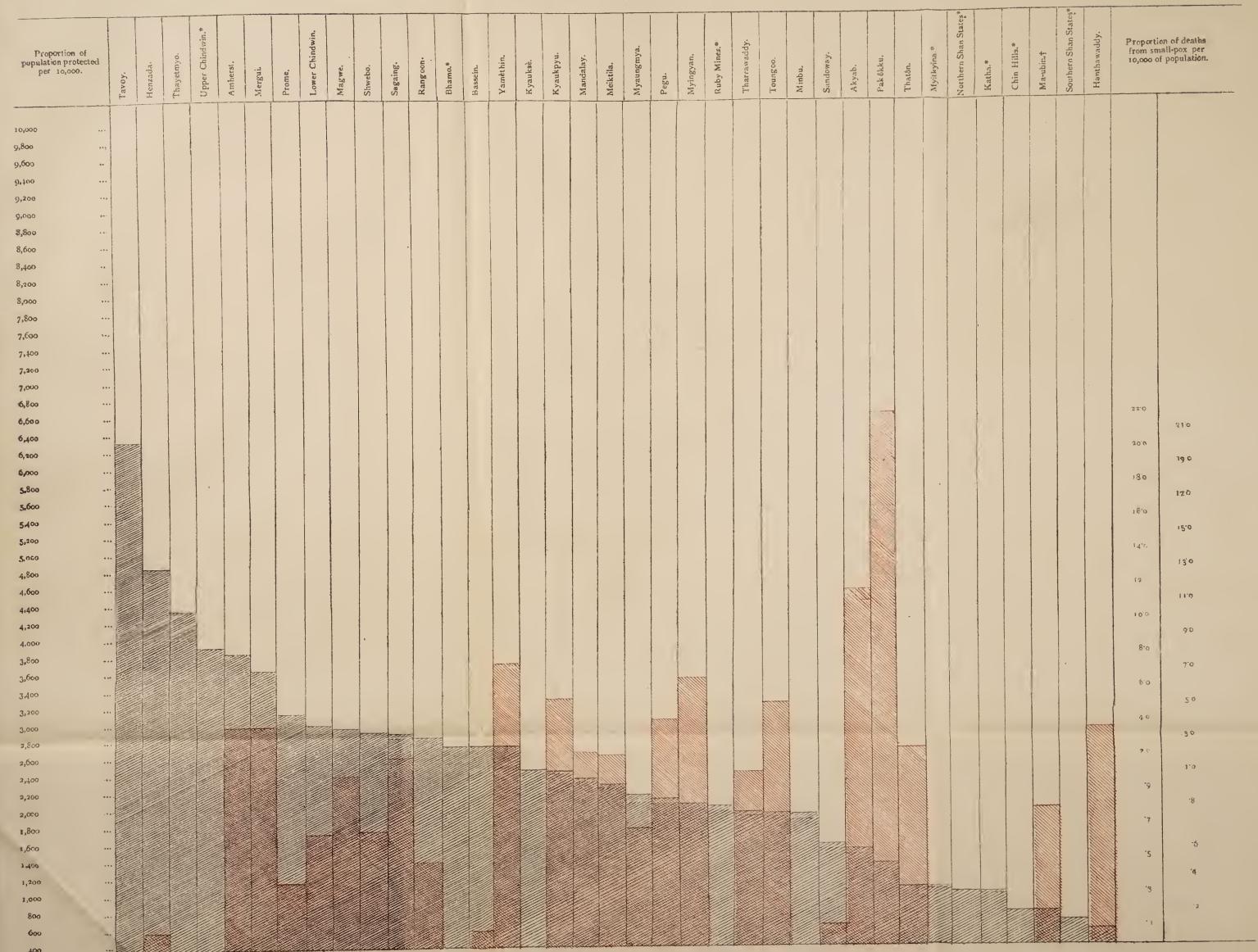
Statistics relating to the number of children under one year of age in sowns available for vaccination and the number of successful operations performed on them (Paragraph 17).

	Tov.	wns.		Number of births during the year 1907- 08.	Number of deaths among children under one year during the year 1907-08.	Number available for vaccination after deducting the numbers who have died as shewn in column 3.	Number of successful vaccinations on children under one year during the year ending 31st March 1908.	Date of extension of Vaccinatio Act into towns.
	1			2	3	4	5	6
Akyab Kyaukpyu Sandoway Rangoon Pegu Prome Paungdè Gyobingauk Letpadan Thônzè Ma-ubin Yandoon Pyapôn Kyaiklat Bassein Ngathainggyaung Myaungmya Wakèma Henzada Zalun Myanaung Kyangin Moulmein Thatôn Kyaikto Tavoy Mergui Toungoo Shwegyin Mandalay Sagaing Mônywa Thayetmyo Allanmyo Yamèthin Pyinmana Myingyan Shwebo Pakôkku Kyauksè Minbu Salin Taungdwingyi Meiktila				614 56 104 4,528 498 849 317 213 248 225 162 370 325 297 947 197 128 236 789 211 266 240 1,380 412 194 908 393 478 242 5,907 382 306 462 421 258 401 510 258 816 230 193 195 195 195 195 195 195 195 195	157 15 12 1,529 161 144 34 64 60 62 29 64 63 75 280 33 31 42 150 30 215 85 37 100 71 101 27 2,075 72 60 164 58 64 124 140 88 217 74 37 74 37 74 63 80	457 41 92 2,909 337 705 283 149 188 163 133 306 257 222 667 164 97 194 639 178 216 210 1,165 327 157 808 322 310 246 298 363 194 277 370 170 599 156 156 156 156 156 156 157 157 157 157 157 157 157 157	365 24 63 3,855 261 612 150 74 95 53 157 223 206 266 584 96 132 126 408 343 464 133 1,070 339 131 837 342 195 4,150 290 244 323 257 209 366 445 118 706 137 144 142 128 80	August 1883. April 1894. September 1890. April 1884. March 1893. June 1890. February 1897. January 1897. October 1891. January 1892. November 1904. 15th December 1904. September 1888. February 1890. June 1894. 27th April 1907. January 1889. August 1894. July 1889. August 1894. August 1894. October 1891. March 1897. December 1889. October 1891. May 1889. January 1890. August 1894. March 1893. May 1894. March 1893. May 1894. November 1891. September 1891. September 1891. September 1891. June 1894. April 1892. May 1894 March 1896. March 1896. February 1893. June 1906.

APPENDICES.

APPENDIX C.

Diagram showing the proportion of Population protected during the seven official years from 1901-02 to 1907-08 and the death-rate from Small-pox during the calendar year 1907 in districts where Registration is in force.

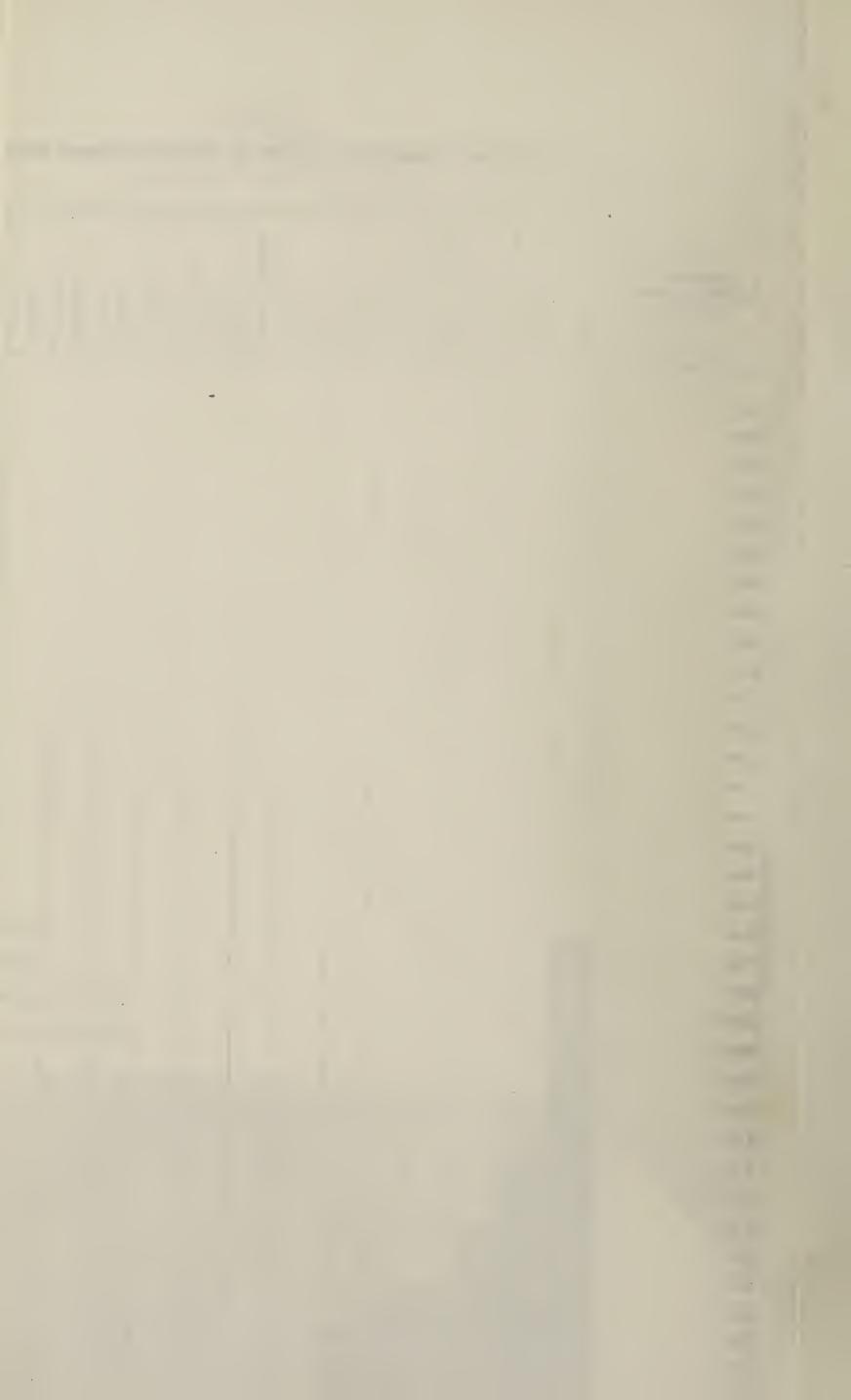


Indicates proportion of population protected per 10,000.



Indicates rates of deaths from small-pox per 10,000 of population.

^{*} Registration of Vital Statistics is not carried out in these districts.









TRIENNIAL REPORT

ON

VACCINATION IN BURMA

FOR THE YEARS 1905-1906 TO 1907-1908



RANGOON

OFFICE OF THE SUPERINTENDENT, GOVERNMENT PRINTING, BURMA



